

# IEA goals for COP22

- Help to scale up and speed up the global clean energy transition.
- Accelerate sustainable energy access, particularly in Africa.
- Strengthen energy sector resilience to climate impacts.

# IEA is the leading provider of SOLUTIONS, ANALYSIS and DATA for the global energy transition

Meeting the long-term climate objectives of the Paris Agreement requires urgently tackling energy-related greenhouse gas emissions.

Individually and collectively, countries need to define and implement policies for an accelerated clean energy transition that is enabled by real-world SOLUTIONS, supported by ANALYSIS, and built on DATA.

The IEA works with countries across the globe to implement climate-resilient decarbonisation pathways.

#### **FIND OUT**

How energy efficiency, renewables and other low-carbon energy solutions can promote sustainable development, improve energy security and achieve environmental goals.

# SOLUTIONS to accelerate the global clean energy transition

The IEA provides countries with extensive policy guidance, leading <u>in-</u><u>depth reviews of national energy policies</u>, including for non-IEA members.

Previous tailored policy analysis has targeted <u>the power sector in sub-Saharan</u> <u>Africa</u>, <u>energy security in Thailand</u>, the <u>energy outlook for India</u>, and energy sector issues in the People's Republic of <u>China</u> and <u>Mexico</u>.

Targeted workshops have supported policy development, whether regarding <u>heavy-duty vehicle standards in India</u> or <u>renewable energy deployment in</u> <u>Southern and Eastern Africa</u>.

Countries such as India, Indonesia, China and South Africa receive support for scaling-up energy efficiency through the Energy Efficiency in Emerging Economies (E4) programme. Through the EU4Energy project, support to improve data collection and indicator and policy development is delivered to several countries in Eastern Europe, Caucasus and Central Asia. The IEA also works with a range of partners, including State Grid Corporation of China, Nordic Energy Research and the Inter-American Development Bank, to examine the challenges and opportunities for increasing electricity interconnection among countries in key regions around the world.

The IEA also serves as a global hub of clean energy knowledge and best practice. It produces the most comprehensive <u>global energy data</u>, which supports specialised training for government officials and other stakeholders.

This includes energy statistics training in collecting and organising nationallevel energy data and online statistical training through webinars on data collection, validation and use. Focused on emerging economies, Energy Efficiency Training Week shares experience with planning, implementing and evaluating energy efficiency policies. The IEA offers training and support for energy modelling activities, including in South Africa, Chile, India, and China. In addition, the IEA carries out joint modelling exercises with different organisations, such as the Energy Research Institute in China and Nordic Energy Research.

The IEA also offers specialised capacity building by topic (e.g., <u>bioenergy</u>, <u>buildings</u>), country (e.g. <u>Ukraine</u>, <u>India</u>, Ethiopia) or region (e.g. Latin America, <u>Southeast Asia</u>, the <u>Middle East</u> and North Africa). See <u>www.iea.org/workshops/</u> for examples of previous workshops.

## PARTNERSHIPS AND COLLABORATION TO ESCALATE ACTION

The IEA manages the world's largest collaborative network of energy technology developers, open to participants from all countries. For over 40 years, <u>Technology Collaboration Programmes</u> (TCPs) have brought together experts from around the world, enabling governments and industries to lead innovation on a wide range of energy technologies.

There are currently 39 TCPs, each focusing on a different energy technology challenge. Over 6 000 experts worldwide are involved, representing nearly 300 public and private organisations in 51 countries.

The IEA now hosts the new Secretariat of the Clean Energy Ministerial (CEM), which seeks to accelerate the deployment of clean energy policies and technologies <u>worldwide</u>. The CEM combines the leadership of energy ministers with engagement by the private sector and other international experts to foster ambitious collaboration, the exchange of good practices and innovative solutions.

# Rigorous ANALYSIS to support sound, cost-effective decision making

The path to a clean energy future will be specific to different countries, regions, sectors and contexts.

The IEA provides guidance on policies critical to the global clean energy transition, including <u>renewables and</u> their integration, carbon capture and <u>storage (CCS), maintaining electricity</u> <u>security while decarbonising electricity</u> <u>generation, energy efficiency across</u> <u>different sectors, and the resilience of</u> <u>the energy sector</u>.

These analyses can help decipher challenges and opportunities in specific policy areas and regions, whether on energy in <u>Africa</u> and <u>Southeast Asia</u>, <u>energy and climate change</u>, <u>air pollution</u> or transitioning to <u>sustainable urban</u> <u>energy systems</u>.

IEA energy modelling sheds light on <u>long-term clean energy pathways</u>, as well as the mitigation potentials and technologies to enable clean energy transitions. Developing different <u>scenarios to examine</u> <u>future energy trends</u> provides insights into how policy decisions and energy market developments can influence medium- to long-term emissions pathways. For example, <u>sustainable</u>

<u>urban energy pathways</u> will be crucial to meet low-carbon ambitions; a variety of measures could limit urban energy demand while urban populations continue to grow.

Energy systems analysis and modelling underscores the importance of short-term action for limiting global temperature rise. Thus, the IEA has identified key actions in a "<u>Bridge scenario</u>" that can peak global energy-related greenhouse gas (GHG) emissions at no net extra cost to the global economy.

The IEA has developed low-carbon energy technology roadmaps for 21 key low-carbon energy technologies. These roadmaps identify priority actions for governments, industry, financial partners and civil society for successful lowcarbon energy technology development and deployment. Technology roadmaps have also been developed with individual countries that face specific challenges. The IEA is embarking on a new round of technology roadmaps to help guide countries, investors and companies to take full advantage of the clean energy research and development opportunities of the future.

#### **DID YOU KNOW?**

The IEA <u>How2Guides</u> provide guidance for countries seeking to develop their own technology roadmaps.



Key actions can peak global energy-related GHG emissions by 2020

## Unparalleled energy DATA to plan, monitor and implement

The IEA uses its consolidated expertise in collecting statistics and developing indicators to track the global clean energy transition, with specific and detailed focus on <u>energy efficiency</u>; <u>CO<sub>2</sub> emissions</u>; <u>energy balances</u>; <u>electricity</u>; <u>renewables</u>; and <u>energy prices and taxes</u>.

The IEA supports improvements in energy data quality by sharing information on <u>data collection practices</u> and developing guidance manuals on <u>energy statistics, research, development</u> <u>and deployment</u> (RD&D) investment and <u>energy efficiency indicators</u>. The IEA provides countries, businesses, and other stakeholders a range of resources, metrics, and tools focused on tracking deployment of clean energy technologies and investment in RD&D. Detailed statistics are integrated and utilised through industry, buildings and transport models.

With its work on <u>global energy</u> <u>investment</u> and the <u>Medium-Term Market</u> <u>Report</u> series, the IEA routinely assesses the state of current energy markets and the forecasts of their short- to mediumterm development.

## **DID YOU KNOW?**

The IEA <u>statistics</u> webpage offers a large selection of free data, short articles and tools to better understand what energy data to collect and why.

*The IEA <u>Policies and Measures Databases</u> contain information on countries' policies and measures to address climate change mitigation.* 

### ABOUT THE IEA

An autonomous intergovernmental organisation, the IEA works to ensure reliable, affordable and clean energy. The "4Es" encompass main areas of focus at the IEA: Energy security, Economic development, Environmental awareness and Engagement worldwide. At the heart of global dialogue on energy, the IEA builds strong working relationships with countries beyond its 29 members, including through an <u>Association</u> process, and houses 39 Technology Collaboration Programmes involving 6 000 researchers from 51 countries.

The IEA is principally funded by its <u>member countries</u> and the revenue it generates from data and publications. It is also funded by voluntary contributions from countries and other energy stakeholders, which support and strengthen various activities in the IEA work programme. The IEA also receives contributions in-kind, especially in the form of <u>staff on loan</u>.



